



# HSM-BASED PROJECT PROFILE

SR 0024 @ Druck Valley Rd (SR 1014) – York County

## SEGMENT INFORMATION:

County: York  
State Route: 0024  
Intersection Seg/Off:  
Segment 0532 Offset 0000  
AADT: 14,594  
Major Road: Mt. Zion Rd  
Speed Limit: 35 MPH  
Minor Road: Druck Valley Rd (SR 1014)  
Speed Limit: 35 MPH  
AADT: 1,050

## RECENT PROJECTS:

None

## PLANNED PROJECTS:

Concrete Pavement Repair and Resurfacing –  
Let Date: 5-12-2022

## CRASH ANALYSIS

---

Crash Statistics (2016-2020):  
County Prioritization Rank: 5  
Observed Crashes: 22  
Excess Value: 2.58  
Excess Cost: \$456,500

22 crashes. 73% angle, 32% wet. No fatalities or suspected serious injuries reported. A majority of the crashes can be attributed to drivers proceeding without clearance/ improper careless turns/running the stop signs or drivers travelling too fast. The intersection is located in the middle of a long hill, and it is likely vehicles are travelling well above the 35 mph posted speed limit for downhill, northbound SR 0024 traffic.

## POTENTIAL IMPROVEMENT CONSIDERATIONS

---

Potential Improvement #1: Widen Lanes and Shoulders  
Crash Modification Factor: 0.83 (HSM PennDOT Worksheet)

Widening the travel lane and shoulder of Mt. Zion Rd in the vicinity of the intersection would provide a recovery area for vehicles encountering a slowing or turning vehicle, as well as improve sight distance at the intersection.

Potential Improvement #2: Improve Intersection Skew Angle  
Crash Modification Factor: 0.92 (ID: 5188)

Realigning the intersection approach on the east leg of Druck Valley Rd. closer to perpendicular will increase driver sight angle, improve vehicle alignment, as well as facilitate higher speed turning movements.

Potential Improvement #3: Install Systemic Signing and Marking Improvements for Stop-controlled Intersections  
Crash Modification Factor: 0.917 (ID: 8866)

Implement basic stop-controlled intersection improvements to the already existing infrastructure. Include advance intersection ahead flashing warning beacons on SR 0024 to draw attention to the intersection for through traffic and help to reduce the angle crashes.

Potential Improvement #4: Improve Intersection Sight Distance

Crash Modification Factor: 0.92 (For crashes affected by sight distance constraint only) (ID: 9656 – PennDOT Worksheet)

Cutting back and trimming the vegetation along the north and south sight lines from the east leg of the intersection would be a low cost option to increase sight distance and help to reduce angle crashes.



# HSM-BASED PROJECT PROFILE

SR 2031 – York County

## SEGMENT INFORMATION:

County: York  
State Route: 2031  
Intersection Seg/Off:  
Segment 0010 Offset 0000 to  
Segment 0030 Offset 0000  
AADT: 5,090  
From Seg 0030 Offset 0000  
To Seg 0040 Offset 0425  
AADT: 7,262  
Major Road: Windsor Rd  
Speed Limit: 35 - 40 MPH

## RECENT PROJECTS:

None

## PLANNED PROJECTS:

None

## CRASH ANALYSIS

---

Crash Statistics (2016-2020):  
County Prioritization Rank: 1  
Observed Crashes: 97  
Excess Value: 11.21  
Excess Cost: \$3,693,900

82 crashes along corridor. 78% of crashes are lane departures, 70% occurring in wet conditions. There were two fatalities and five suspected serious injuries. A majority of the crashes are attributed to drivers traveling too fast for the conditions.

## POTENTIAL IMPROVEMENT CONSIDERATIONS

---

Potential Improvement #1: Improve Curve Signs  
Crash Modification Factor: 0.725 (Non-intersection crashes only) (ID: 10613)

Treatments can include new chevrons, horizontal arrows, and advance warning signs as well as the improvement of existing signs using fluorescent yellow sheeting (Recommended for the three major curves along the corridor as well as the curve at the northern most part of the corridor near Blacksmith Rd)

Potential Improvement #2: Widen Shoulder and Add Shoulder Rumble Strips  
Crash Modification Factor: 0.35 (K, A, B, C crashes only, Run off road crashes only) (ID: 3630)  
Widening the shoulder is necessary to provide sufficient room for installation of shoulder rumble strips and would provide a small recovery area for errant vehicles. (Recommend installing both shoulder rumble strips and widening shoulder on roadway between Valley Rd and Delta Rd, and only shoulder rumble strips north of School House Lane.)

Potential Improvement #3: Provide HSFT on Major Curves  
Crash Modification Factor: 0.529 (ID: 10318)

Install High Friction Surface Treatment (HFST) to increase the friction forces on the roadway to help reduce errant vehicle run off road crashes. (Recommended on all major curves of the corridor)

Potential Improvement #4: Install d  
Delineators on Curve Between Valley Rd and Azalea Dr  
Crash Modification Factor: 0.85 (Run off road crashes only)  
(ID: 9727)

Install post mounted delineators (and guiderail delineators where applicable) to delineate curve at nighttime. This curve had a higher proportion (50%) of nighttime crashes and is in a partially wooded section. (Recommended for the curve between Valley Rd and Azalea Rd)

Potential Improvement #5: Install Left-turn Lane into Azalea Road  
Crash Modification Factor: 0.748 (ID: 7996)

Adding a main line left turn lane leading into the residential street of Azalea Road (located in a curve) would help to reduce rear end crashes at this intersection.

# HSM INTERSECTION PRIORITIZATION SUMMARY

## York County – Bannister Street & Adams Street

### Intersection Information

County: York  
Major Road Name: Bannister Street  
State Route: SR 3048  
Beginning Seg / Off: 0030 / 1613  
AADT: 6466  
Speed Limit: 35 MPH  
Minor Road Name: Adams Street  
State Road: T-518  
AADT: 3893  
Speed Limit: 25 MPH

### Crash Statistics (2015-2019)

Observed Crashes: 33  
Excess Value: \$751,400



### Crash Analysis

Of the 33 crashes, 32 were angle crashes resulting from vehicles which proceeded without enough clearance or ran stop signs. 1 pedestrian crash occurred in 2016.

### Potential Improvement Considerations

- Freeflow movements on Bannister St create long queues on stop controlled approaches along Adams Street. Use ICE policy to evaluate other intersection configurations, including roundabouts.
- Drivers make imprudent through movements across Bannister Street. Add "cross traffic does not stop" plaques to stop signs.
- Left turns on Bannister Street create multiple threats as through vehicles circle around waiting vehicles.

### Recent Projects:

None.

### Scheduled Projects:

Safety improvements planned to be constructed at this intersection by 2026. Treatments can include flashing beacons, curb adjustments, and/or traffic signals.



# SYSTEMIC SAFETY IMPROVEMENT PROJECT

## District 8 – Traffic Safety

### POTENTIAL IMPROVEMENT DESCRIPTION

---

Install High Friction Surface Treatment and Replace Advanced Warning Countermeasures

Crash Modification Factor: 0.529 (ID: 10318)

The roadway must have an appropriate level of pavement friction to ensure that vehicles stay safely in their lane. Poor pavement conditions, especially wet pavement, have been identified as one of the major contributing factors in roadway departure crashes. A high friction surface treatment (HFST) is an ideal countermeasure for such locations because it significantly increases pavement friction, which in turn helps prevent drivers from losing control. However, existing pavement conditions must be free of defects, such as potholes, rutting, etc., before the HFST can be installed. Additionally, the locations should have the associated curve warning signs and in-lane curve warning pavement markings installed/replaced to maximize the safety benefit provided.

### LOCATION CONSIDERATIONS

---

#### York County

SR 2031 (0010/2300 – 0020/2250)  
County Prioritization Rank: 1  
Avg. Annual Observed Crashes: 5.8  
Excess Value: 2.66

SR 2031 (0030/2000 – 0040/0450)  
County Prioritization Rank: 1  
Avg. Annual Observed Crashes: 5  
Excess Value: 2.93

SR 0851 (0660/2200 – 0670/0300)  
County Prioritization Rank: 1  
Avg. Annual Observed Crashes: 3.6  
Excess Value: 1.66

SR 2002 (0080/0450 – 0080/2000)  
County Prioritization Rank: 2  
Avg. Annual Observed Crashes: 3.6  
Excess Value: 1.56

SR 2095 (0040/0800 – 0050/0950)  
County Prioritization Rank: 4  
Avg. Annual Observed Crashes: 5.8  
Excess Value: 2.9

SR 3072 (0030/0700 – 0030/1150)  
County Prioritization Rank: 5  
Avg. Annual Observed Crashes: 2.8  
Excess Value: 1.62

SR 3072 (0040/1900 – 0050/1350)  
County Prioritization Rank: 5  
Avg. Annual Observed Crashes: 5.8  
Excess Value: 2.51

SR 0024 (0560/1850 – 0570/1850)  
County Prioritization Rank: 10  
Avg. Annual Observed Crashes: 5.4  
Excess Value: 1.63

SR 0216 (0240/0900 – 0240/2050)  
County Prioritization Rank: 11  
Avg. Annual Observed Crashes: 5.6  
Excess Value: 3.26

SR 3072 (0090/2400 – 0100/0950)  
County Prioritization Rank: 15  
Avg. Annual Observed Crashes: 3  
Excess Value: 1.32